

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2021/0112184 A1 Jarvis et al.

(43) **Pub. Date:** Apr. 15, 2021

(54) PORTABLE ELECTRONIC DEVICE

(71) Applicant: Apple Inc., Cupertino, CA (US)

(72) Inventors: **Daniel W. Jarvis**, Sunnyvale, CA (US); Michael D. Quinones, Campbell, CA (US)

(21) Appl. No.: 17/129,174

(22) Filed: Dec. 21, 2020

Related U.S. Application Data

(63) Continuation of application No. 16/532,237, filed on Aug. 5, 2019, now Pat. No. 10,904,412, which is a continuation of application No. 15/826,400, filed on Nov. 29, 2017, now Pat. No. 10,425,561.

(60) Provisional application No. 62/556,190, filed on Sep. 8, 2017.

Publication Classification

(51) Int. Cl. H04N 5/225 (2006.01)H04M 1/02 (2006.01)G06F 1/16 (2006.01)

(52) U.S. Cl.

CPC H04N 5/2253 (2013.01); H04M 1/0264 (2013.01); H04N 5/2257 (2013.01); G06F 1/1684 (2013.01); H04N 5/2251 (2013.01); H04R 2499/11 (2013.01); H04N 5/2252 (2013.01); H04N 5/2254 (2013.01); H04N 5/2256 (2013.01); H04N 5/2258 (2013.01); G06F 1/1686 (2013.01)

(57)ABSTRACT

Portable electronic devices having I/O assemblies that can include optical and audio components are described. An exemplary I/O assembly can include a first camera module and a second camera module that can be carried within a camera module housing. A flex connector can carry a strobe that can be positioned between the first camera module and the second camera module. A trim can enclose the first camera, the second camera and the strobe and optically isolates the optical components. An exemplary portable electronic device can include a side wall retainer that defines its perimeter, a front cover glass and a rear cover glass that cooperate to form an enclosure. The I/O assembly can be secured to the enclosure both from inside and outside of the rear cover glass. I/O assembly can also include an audio transducer that can record sound when the camera module are recording videos.

